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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KARLSEN, ERNEST F

ART UNIT PAPER NUMBER

2829

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/035,186

Applicant(s)

DAS ET AL.

Examiner

Ernest F. Karlisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 2-27-03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) 17, 18 and 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-16 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)  
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_\_

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1. Claims 17, 18 and 24-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions and/or species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 6.

2. Claims <sup>14-16 and 19-23</sup>~~17, 18 and 24-29~~ are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what all the claimed steps are and it is not clear how they would be implemented to produce the desired results. It is requested that a reading of the claims be provided with respect to the specification and drawings. For instance, in claim 14 it appears that the path is between connections on the semiconductor devices and that the testing is done by sending signals between connections on the semiconductor devices.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

4. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 14, 16, 19, 22 and 23 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Littlebury et al.

Littlebury et al shows provision of electrical paths between external connections on semiconductor devices. Burn-in and testing is carried out by sending signals through the external connections on the semiconductor devices. With regard to claim 26 all adjacent pairs of

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Littlebury et al are paired. Drivers and receivers are inherent in all testers, therefor the limitation of claim 19 is inherent in the apparatus and method of operation of Littlebury et al. The limitations of claims 22 and 23 are present in the apparatus of Littlebury et al. Note the abstract and column 3, lines 41-53 of Littlebury et al.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Littlebury et al in view of Thatcher et al.

Littlebury et al was discussed above but does not show boundary scan or wrap test testing. Thatcher et al show the use of boundary scan to test connections to a semiconductor. It would have been obvious to one of ordinary skill in the art at the time of the invention to have adapted the test technique of Thatcher et al to the apparatus of Littlebury et al because one of ordinary skill in the art would realize that doing so would enable testing of internal elements of the semiconductor device and connections to the semiconductor device.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Littlebury et al in view of Nakata et al.

Littlebury et al was discussed above but does not have a thin film with passages and conductive material <sup>in the</sup> ~~in the~~ passages or a space transformer. Nakata et al shows in figure 1(b) thin film 9 with passages and conducting material 14 passing therethrough where the conducting material 14 is connected to a space transformer 11 or 12. It would have been obvious to one of ordinary skill in the art at the time of the invention to have adapted the contacting structure of Nakata et al for use with the apparatus of Littlebury et al and to have used in the obvious manner because one skilled in the art would realize that so doing would ~~realize that it would make~~ <sup>make</sup> it easier to adapt the use of Littlebury et al to burn-in and test a device of any configuration.

Karlsen/ds

05/19/03

  
ERNEST KARLSEN  
PRIMARY EXAMINER